

BB14 Series  
Intercept® Back Box

Installation/  
Operation Manual

C454M-C (1/98)



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## CONTENTS

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<u>Section</u>	<u>Page</u>
1.0 GENERAL .....	5
1.1 IMPORTANT SAFEGUARDS AND WARNINGS .....	5
1.2 UNPACKING INSTRUCTIONS .....	6
1.3 RECOMMENDED TOOLS .....	6
2.0 DESCRIPTION .....	7
2.1 MODELS .....	7
3.0 INSTALLATION .....	9
3.1 MOUNTING .....	9
3.1.1 Suspended Ceiling Mounting .....	9
3.1.2 Hard Ceiling Mounting .....	10
3.1.2.1 Optional Backup Plate Installation .....	10
3.1.3 Pendant Mounting .....	11
3.2 WIRING INSTRUCTIONS .....	12
3.2.1 On-Board Receiver/Driver .....	12
3.2.2 Hard-Wire or Remote Receiver/Driver .....	17
3.2.3 Heater/Blower Kit Field Installation .....	20
3.3 DOME DRIVE INSTALLATION .....	20
4.0 EXPLODED ASSEMBLY DIAGRAMS .....	21
5.0 SPECIFICATIONS .....	26
6.0 WARRANTY AND RETURN INFORMATION .....	28

## LIST OF ILLUSTRATIONS

<u>Figure</u>		<u>Page</u>
1	"T-Bar" Clip Installation .....	9
2	Backup Plate Installation .....	11
3	24 VAC Back Box Wiring Diagram (for Dome Drives with Integral Receiver/Driver) .....	14
4	120 VAC Back Box Wiring Diagram (for Dome Drives with Integral Receiver/Driver) .....	15
5	230 VAC Back Box Wiring Diagram (for Dome Drives with Integral Receiver/Driver) .....	16
6	Wiring Diagram, Hard-Wire Control with Heater .....	18
7	Wiring Diagram, Hard-Wire Control without Heater .....	19
8	Suspended Ceiling Back Box Exploded Assembly Diagram .....	21
9	Hard Ceiling Back Box Exploded Assembly Diagram .....	22
10	Pendant Back Box Exploded Assembly Diagram .....	23
11	Back Plate Exploded Assembly Diagram .....	24
12	Suspended/Hard Ceiling Dimension Drawings .....	27
13	Pendant-Mount Dimension Drawing .....	27

## LIST OF TABLES

<u>Table</u>		<u>Page</u>
A	Video Coaxial Cable Requirements .....	13
B	24 VAC Wiring Distances .....	13
C	Suspended Ceiling Back Box Exploded Assembly Parts List .....	21
D	Hard Ceiling Back Box Exploded Assembly Parts List .....	22
E	Pendant Back Box Exploded Assembly Part List .....	23
F	Back Plate Exploded Assembly Parts List (Figure 11) .....	25

## REVISION HISTORY

<u>Manual #</u>	<u>Date</u>	<u>Comments</u>
C454M	—	Original version.
C454M-A	6/95	Revised to incorporate B.O.M. quantity changes as per ECO# 94-445. Added 4-position terminal block information as per ECO# 94-042. Incorporated new "Front" labeling to B.O.M. as per ECO# 94-192. Updated manual to new style standards. Added manual revision history.
	6/23/95	Addendum. Incorporated new fuse and fuse holder into wiring diagrams and exploded view diagram as per ECO# 95-063.
	2/27/96	Addendum. Section 5.0 Mechanical Parts List revised.
C454M-B	4/96	Rev. B. Added Section 3.4.2.1 and Figure 16 per ECO# 96-061. Changed heater specifications.
C454M-C	1/98	Changed manual to new format and manual pagination. Reduced number of models. Revised installation instructions. Updated exploded assembly diagrams and parts lists.

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## 1.0 GENERAL

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### 1.1 IMPORTANT SAFEGUARDS AND WARNINGS

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by Qualified Service Personnel and conform to all Local codes.
2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
3. Only use replacement parts recommended by Pelco.
4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.
5. The installation method and materials should be capable of supporting four (4) times the weight of the enclosure, pan/tilt, camera and lens combination.

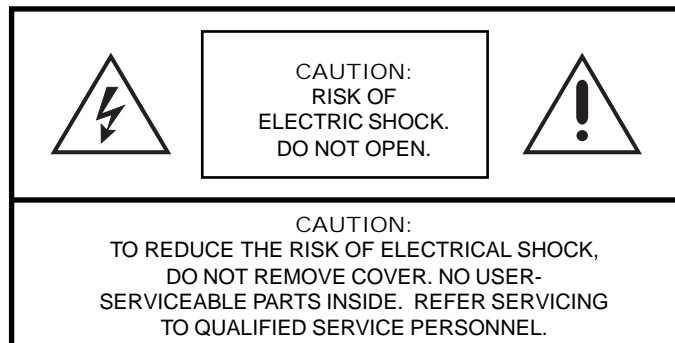
The product and/or manual may bear the following marks:



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

## 1.2 UNPACKING INSTRUCTIONS

Unpack and inspect all parts carefully.

Be sure to save the shipping carton and any inserts. They are the safest material in which to make future shipments.

If an item appears to have been damaged in shipment, replace it properly in its carton and contact the factory at 1-800-289-9100 or 1-559-292-1981 for a replacement. (International customers fax 1-559-348-1120 for authorization and instructions.)

If an item needs to be returned to the factory for repair, consult the WARRANTY AND RETURN section of this manual for instructions.

The following items are supplied:

### Suspended Ceiling Models

- 1 Back box with face plate, trim ring, and dome
- 1 Parts bag
- 2 Eye bolts with nuts, flat washers and split lock washers
- 4 T-rail clips
- 1 Installation/Operation Manual (C454M-C)

### Hard Ceiling Models

- 1 Back box with trim ring and dome
- 1 Installation/Operation Manual (C454M-C)

### Pendant Models

- 1 Bezel with dome
- 1 Pendant cap
- 1 Back box
- 1 Back box gasket
- 1 Parts bag with two O-rings (outdoor models only)
- 1 Installation/Operation Manual (C454M-C)

## 1.3 RECOMMENDED TOOLS

Pelco does not supply basic tools needed for the installation process. The following tools are recommended:

Medium Phillips screwdriver  
Wire cutter  
Wire stripper  
BNC crimp tool  
Coaxial cable stripper  
Hammer and punch (suspended ceiling model only)  
Large Phillips screwdriver (suspended ceiling model only)  
11 mm wrench (suspended ceiling model only)  
Drill (hard ceiling models only)

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## 2.0 DESCRIPTION

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The BB14 Series of back boxes is part of the IDS14 Intercept® Series of domes. The IDS14 Series is an integral system that includes a back box (BB14), dome drive or fixed mount (DD14), and dome receiver/driver (DRD14).

This manual cover the BB14 Series of back boxes. For installation and operation instructions for the dome drive, refer to manual C458M-B; for the fixed mount, refer to C291M-B; and for the dome receiver/driver, refer to C466M-E.

### 2.1 MODELS

#### Indoor, Suspended-Grid Ceiling

BB14A100	Indoor back box for suspended-grid ceiling; smoked dome; hard-wire control. (CE)
BB14A101	Indoor back box for suspended-grid ceiling; clear dome; hard-wire control. (CE)
BB14A110	Indoor back box for suspended-grid ceiling; smoked dome; 120 VAC input. (UL)
BB14A111	Indoor back box for suspended-grid ceiling; clear dome; 120 VAC input. (UL)
BB14A120	Indoor back box for suspended-grid ceiling; smoked dome; 24 VAC input. (CE, UL)
BB14A121	Indoor back box for suspended-grid ceiling; clear dome; 24 VAC input. (UL)
BB14A130	Indoor back box for suspended-grid ceiling; smoked dome; 230 VAC input. (CE)
BB14A131	Indoor back box for suspended-grid ceiling; clear dome; 230 VAC input. (CE)

#### Indoor, Hard Ceiling

BB14C100	Indoor back box for hard ceiling; smoked dome; hard-wire control. (CE, UL)
BB14C101	Indoor back box for hard ceiling; clear dome; hard-wire control. (CE, UL)
BB14C110	Indoor back box for hard ceiling; smoked dome; 120 VAC input. (UL)
BB14C111	Indoor back box for hard ceiling; clear dome; 120 VAC input. (UL)
BB14C120	Indoor back box for hard ceiling; smoked dome; 24 VAC input. (CE, UL)
BB14C121	Indoor back box for hard ceiling; clear dome; 24 VAC input. (CE, UL)
BB14C130	Indoor back box for hard ceiling; smoked dome; 230 VAC input. (CE)
BB14C131	Indoor back box for hard ceiling; clear dome; 230 VAC input. (CE)

Indoor, Pendant

BB14E100	Indoor, black, pendant-mount back box; smoked dome; hard-wire control. (CE, UL)
BB14E101	Indoor, black, pendant-mount back box; clear dome; hard-wire control. (CE, UL)
BB14E110	Indoor, black, pendant-mount back box; smoked dome; 120 VAC input. (UL)
BB14E111	Indoor, black, pendant-mount back box; clear dome; 120 VAC input. (UL)
BB14E120	Indoor, black, pendant-mount back box; smoked dome; 24 VAC input. (CE, UL)
BB14E121	Indoor, black, pendant-mount back box; clear dome; 24 VAC input. (CE, UL)
BB14E130	Indoor, black, pendant-mount back box; smoked dome; 230 VAC input. (CE)
BB14E131	Indoor, black, pendant-mount back box; clear dome; 230 VAC input. (CE)

Outdoor, Pendant

BB14E200	Outdoor, gray, pendant-mount back box; smoked dome; hard-wire control. Includes 120 VAC heater and blower. (CE)
BB14E200-2	Outdoor, gray, pendant-mount back box; smoked dome; hard-wire control. Includes 24 VAC heater and blower. (CE)
BB14E200-3	Outdoor, gray, pendant-mount back box; smoked dome; hard-wire control. Includes 230 VAC heater and blower. (CE)
BB14E201	Outdoor, gray, pendant-mount back box; clear dome; hard-wire control. Includes 120 VAC heater and blower. (CE)
BB14E201-2	Outdoor, gray, pendant-mount back box; smoked dome; hard-wire control. Includes 24 VAC heater and blower. (CE)
BB14E201-3	Outdoor, gray, pendant-mount back box; smoked dome; hard-wire control. Includes 230 VAC heater and blower. (CE)
BB14E210	Outdoor, gray, pendant-mount back box; smoked dome; 120 VAC input. Includes 120 VAC heater and blower. (UL)
BB14E211	Outdoor, gray, pendant-mount back box; clear dome; 120 VAC input. Includes 120 VAC heater and blower. (UL)
BB14E220	Outdoor, gray, pendant-mount back box; smoked dome; 24 VAC input. Includes 24 VAC heater and blower. (CE, UL)
BB14E221	Outdoor, gray, pendant-mount back box; clear dome; 24 VAC input. Includes 24 VAC heater and blower. (CE, UL)
BB14E230	Outdoor, gray, pendant-mount back box; smoked dome; 230 VAC input. Includes 230 VAC heater and blower. (CE)
BB14E231	Outdoor, gray, pendant-mount back box; clear dome; 230 VAC input. Includes 230 VAC heater and blower. (CE)



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## 3.0 INSTALLATION

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### 3.1 MOUNTING

**NOTE:** *If you are going to install a heater/blower kit, it should be done before installing the back box. Refer to Section 3.2.3, HEATER/BLOWER KIT FIELD INSTALLATION.*

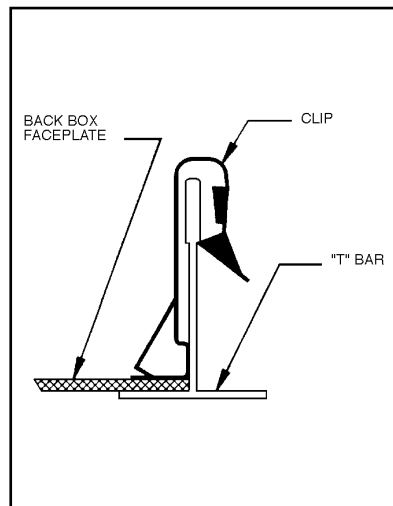
The Intercept® Series of domes provide back box configurations for several applications and environments (refer to Figures 12 and 13).

Installation instructions for the applications listed below will appear in the following order:

1. Suspended ceiling mounting
2. Hard ceiling mounting
3. Pendant mounting

#### 3.1.1 Suspended Ceiling Mounting

**NOTE:** *When installing into a 2' x 4' (.61 m x 1.22 m) ceiling grid, cut the ceiling tile in half and install an additional "T" rail for support.*



**Figure 1.** "T-Bar" Clip Installation

To mount the back box into a suspended ceiling grid, perform the following steps:

1. Determine the location for mounting the back box and remove the appropriate ceiling tile.
2. Angle the back box through the grid opening and set the box into the grid.
3. From an opening in a grid adjacent to the back box apply the four (4) clips supplied to the "T" bar to secure the back box to the grid (refer to Figure 1).
4. If additional support is required (such as anchoring with a chain or steel cable to a support beam above the dome enclosure), install one or both of the 1/4-20 eye bolts and washers that are supplied in the parts bag:
  - a. Remove one or two of the 1/4-20 screws in the top of the back box.
  - b. Screw a nut about a half inch onto an eyebolt.
  - c. Slide a split lock washer and flat washer onto the eyebolt.
  - d. Screw the eyebolt into the back box and lock the eyebolt into place by tightening the nut with an 11 mm wrench.
  - e. Repeat steps b-d if you are going to install the second eyebolt.
  - f. Use a chain or cable to fasten the eyebolt(s) to a support structure in the ceiling.

**Proceed to Section 3.2, WIRING INSTRUCTIONS.**

### 3.1.2 Hard Ceiling Mounting

For installing the back box in a hard ceiling, an optional backup plate is provided for applications where additional reinforcement to the ceiling structure is needed.

To mount the back box directly into a hard ceiling, perform the following steps.

1. Determine the location of the back box. Ideally the back box cutout should be adjacent to any ceiling structure.
2. Cut the opening in the ceiling (16-13/16" in diameter).
3. Insert the back box into the opening. Mark spots to drill holes through the side of the back box at the locations where fasteners need to be located. Remove the back box and drill the holes.
4. Using the appropriate fasteners (not supplied) attach the back box to any adjacent structure through the drilled holes in the box.

**Proceed to Section 3.2, WIRING INSTRUCTIONS.**

#### 3.1.2.1 Optional Backup Plate Installation

A backup plate assembly is supplied with all back boxes to be installed in hard ceilings, and is for use in applications where additional reinforcement to the ceiling structure is needed. To install the backup plate, do steps 1 through 2 in Section 3.1.2 and then proceed as follows. Refer to Figure 2.

1. Insert the back box into the opening in the ceiling and mark the ceiling with the locations of four of the screw holes in the flange. The holes must be 90° apart.
2. Remove the back box and drill 13/64" screw holes in the ceiling at the marked points.
3. Insert the two (2) pieces of the backup plate through the large hole and position them around the opening. Connect the two halves using the studs provided.
4. Align the nuts in the plate with the four (4) screw holes in the ceiling.
5. Insert the back box into the ceiling, and align the screw holes in the ceiling with the holes in the flange of the back box.
6. Attach the back box to the backup plate with four (4) 6-32 screws provided.
7. Use appropriate fasteners (not supplied) to attach the back box to any adjacent structure through the holes drilled in the side of the back box.

**Proceed to Section 3.2, WIRING INSTRUCTIONS.**

### 3.1.3 Pendant Mounting

NOTE: *The length of pipe used may effect noticeable motion on the video display. If this occurs additional support of the pipe by bracing, guy wiring, etc. will be required.*

NOTE: *For outdoor models apply pipe thread sealant to the pipe threads prior to assembly.*

The pendant back box is designed to be suspended from a suitable length of 1-1/2" pipe threaded at both ends. This pipe can be interfaced to the IWM Series or IDM4018 wall mounts or to the MRWA wall adapter mount or MRCA ceiling adapter mount.

To install the pendant type back box, perform the following steps:

1. Select and install the mount of choice according to the instructions provided with the mount. This may be a good time to route any needed wiring through the mount. Refer to Section 3.2, WIRING INSTRUCTIONS.
2. Select the appropriate length of pipe (2-1/2" minimum length) and thread into the mount. Tighten to approximately 30 ft/lb and tighten any locking means that may be provided on the mount.

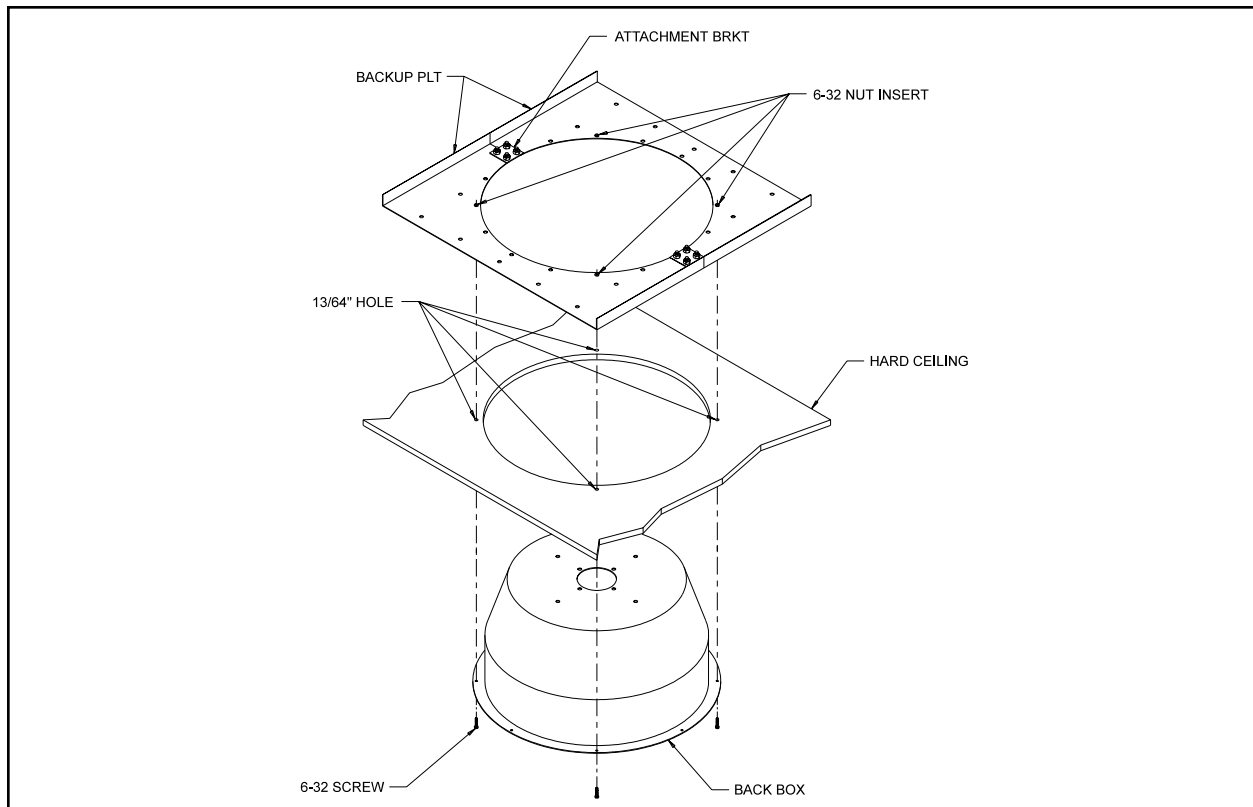
3. Slide the back box "cap" up the pipe.

On outdoor units first slide one (1) of the two (2) O-rings up the pipe, followed by the "cap" and the second O-ring.

On indoor models while holding the "cap" in place, bring the back box into place and engage the threaded flange on the back box with the pipe. (Be sure to back out the locking screw in the flange prior to this.)

4. Spin the back box onto the pipe. The latches inside the back box may be used as handles to provide a light torque to the box (approximately 20 ft/lb). Tighten the lock screw.
5. Lower the "cap" onto the top of the back box. On outdoor models also lower the external O-ring until it contacts the "cap".

**Proceed to Section 3.2, WIRING INSTRUCTIONS.**



**Figure 2. Backup Plate Installation**

## 3.2 WIRING INSTRUCTIONS

How your back box will be wired depends on the type of unit you have:

Units with an on-board receiver/driver

Units without an on-board receiver/driver (hard-wire applications)

Hardwire refers to installations using a remote receiver/driver or a true hardwire controller.

**Proceed to either Section 3.2.1, On-Board Receiver/Driver, or Section 3.2.2, Hardwire or Remote Receiver/Driver.**

### 3.2.1 On-Board Receiver/Driver

On models for suspended ceilings or hard ceilings, a plate is provided on the top of the back box with 1/2" and 3/4" conduit knockouts.

1. Bring the wiring to the back box.

Video - Refer to Table A for the type of video coaxial cable to use.

Power - If the input power to the dome is 24 VAC, refer to Table B to determine the size of wire to use. For outdoor units, make sure the wiring can supply power for the heaters and fan as well as the receiver/driver. Refer to Section 5.0, SPECIFICATIONS, for power requirements.

Control - If you **are** using a Coaxitron® controller, the control signals to operate the dome drive will be transmitted over the video coax.

If you **are not** using a Coaxitron® controller, bring wires to the back box for two (2) RS-485 control lines (RX+ and RX-).

Refer to Figure 3, 4, or 5 for the following steps.

2. Install the coaxial cable to the BNC connector.
3. Install power to the 10-position terminal block. Make sure the power switch on the side of the back box is off.
4. If you are **not** using Coaxitron® control, connect the control wiring to RXD+ and RXD-.

From controller	To 4-wire terminal inside back box
TXD+ TXD-	RXD+ RXD-

**Proceed to Section 3.3, DOME DRIVE INSTALLATION.**

**Table A.** Video Coaxial Cable Requirements

Cable Type*	Maximum Distance
RG59/U	750 ft (229 m)
RG6/U	1,000 ft (305 m)
RG11/U	1,500 ft (457 m)
* Minimum cable requirements: 75 ohms All-copper center conductor All-copper braided shield with 95% braid coverage	

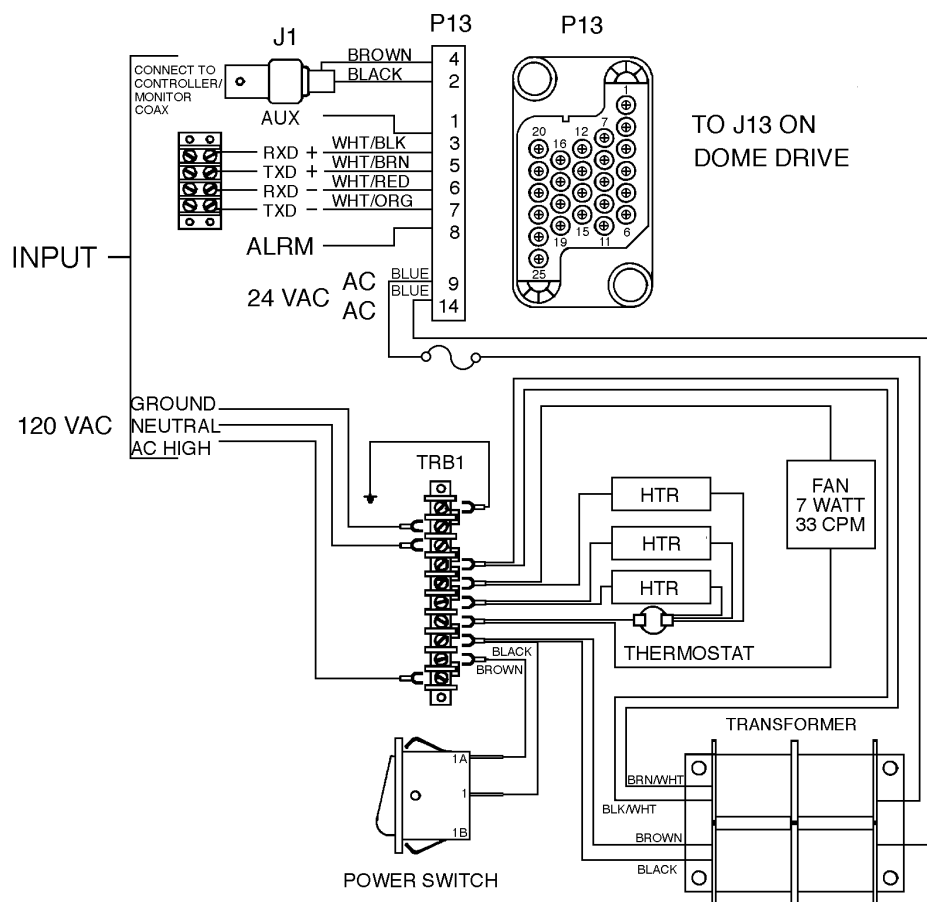
**Table B.** 24 VAC Wiring Distances

The following are the recommended maximum distances for 24 VAC applications and are calculated with a 10-percent voltage drop. (10-percent is generally the maximum allowable voltage drop for AC-powered devices.)

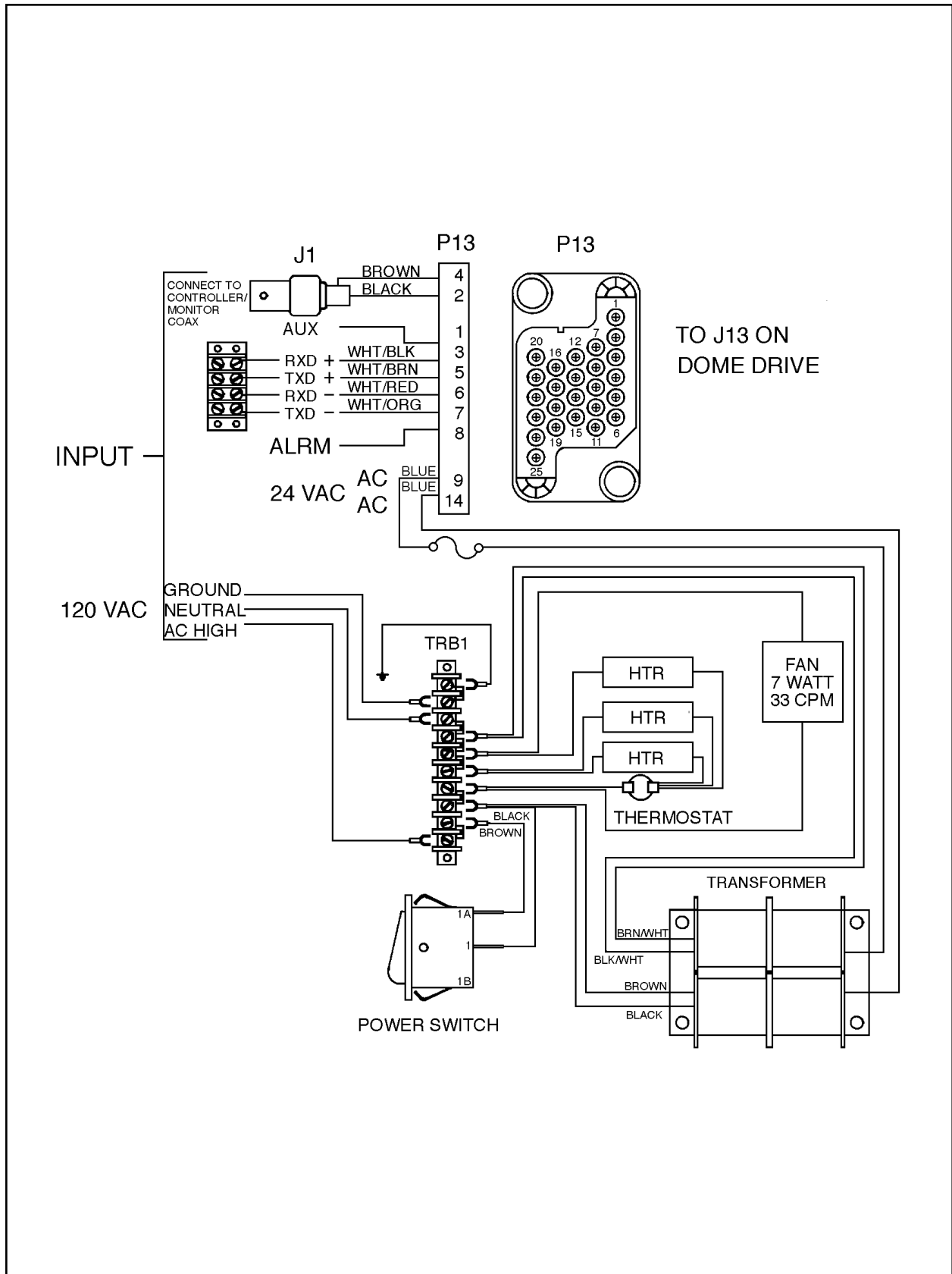
EXAMPLE: An enclosure that requires 80 vA and is installed 35 feet (10 m) from the transformer would require a minimum wire gauge of 20 Awg.

NOTE: Distances are calculated in feet; values in parentheses are meters.

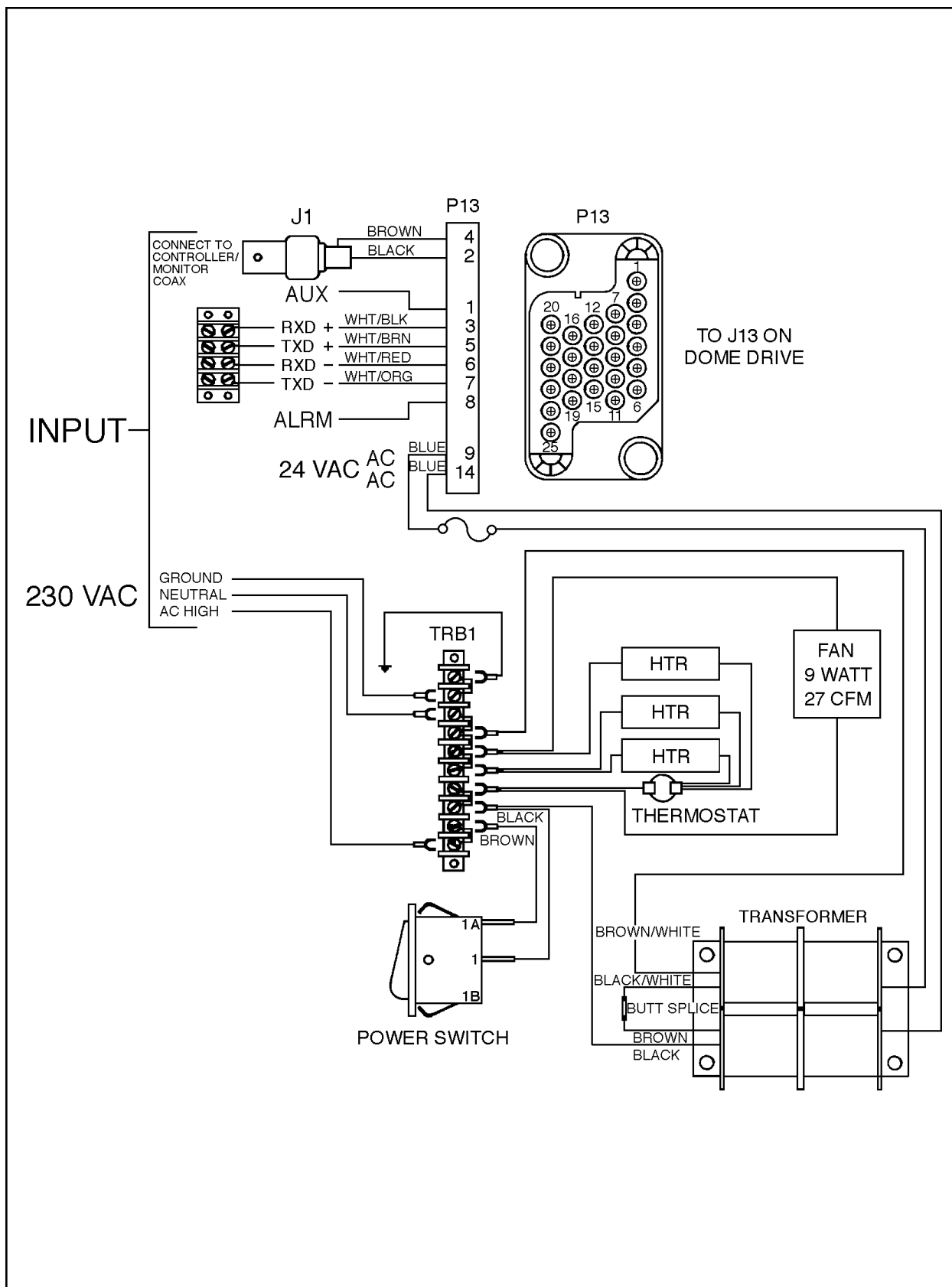
		Wire Gauge					
		20	18	16	14	12	10
Total vA consumed	10	283 (86)	451 (137)	716 (218)	1142 (348)	1811 (551)	2880 (877)
	20	141 (42)	225 (68)	358 (109)	571 (174)	905 (275)	1440 (438)
	30	94 (28)	150 (45)	238 (72)	380 (115)	603 (183)	960 (292)
	40	70 (21)	112 (34)	179 (54)	285 (86)	452 (137)	720 (219)
	50	56 (17)	90 (27)	143 (43)	228 (69)	362 (110)	576 (175)
	60	47 (14)	75 (22)	119 (36)	190 (57)	301 (91)	480 (146)
	70	40 (12)	64 (19)	102 (31)	163 (49)	258 (78)	411 (125)
	80	35 (10)	56 (17)	89 (27)	142 (43)	226 (68)	360 (109)
	90	31 (9)	50 (15)	79 (24)	126 (38)	201 (61)	320 (97)
	100	28 (8)	45 (13)	71 (21)	114 (34)	181 (55)	288 (87)
	110	25 (7)	41 (12)	65 (19)	103 (31)	164 (49)	261 (79)
	120	23 (7)	37 (11)	59 (17)	95 (28)	150 (45)	240 (73)
	130	21 (6)	34 (10)	55 (16)	87 (26)	139 (42)	221 (67)
	140	20 (6)	32 (9)	51 (15)	81 (24)	129 (39)	205 (62)
	150	18 (5)	30 (9)	47 (14)	76 (23)	120 (36)	192 (58)
	160	17 (5)	28 (8)	44 (13)	71 (21)	113 (34)	180 (54)
	170	16 (4)	26 (7)	42 (12)	67 (20)	106 (32)	169 (51)
	180	15 (4)	25 (7)	39 (11)	63 (19)	100 (30)	160 (48)
	190	14 (4)	23 (7)	37 (11)	60 (18)	95 (28)	151 (46)
	200	14 (4)	22 (6)	35 (10)	57 (17)	90 (27)	144 (43)
		Maximum distance from transformer to load					



**Figure 3.** 24 VAC Back Box Wiring Diagram (for Dome Drives with Integral Receiver/Driver)



**Figure 4.** 120 VAC Back Box Wiring Diagram (for Dome Drives with Integral Receiver/Driver)



**Figure 5.** 230 VAC Back Box Wiring Diagram (for Dome Drives with Integral Receiver/Driver)



### 3.2.2 Hard-Wire or Remote Receiver/Driver

Refer to Figures 6 and 7 for wiring diagrams.

Refer to Table A for the type of video coaxial cable to use.

On models for suspended ceilings or hard ceilings, a plate is provided on the top of the back box with 1/2" and 3/4" conduit knockouts.

If your back box has a power switch, make sure it is off before wiring power to the back box.

A minimum of eleven (11) conductors plus coax are required for pan/tilt, motorized zoom lens and camera power. Dome drives with presets (PP) require an additional six (6) conductors for Type D or seven (7) conductors for Type E. The above does not include the conductor requirements for heaters/blower which will need an additional two (2) plus ground.

The following cable distances are approximate and does not account for heaters/blower.

Calculations are based on a 10% cable loss with both motors running.

Dome Drive	Model Type	
Type B & C	Non-Preset Models	
	11 Conductors	12 Conductors*
Type D	Preset Non-SL Models	
	17 Conductors	18 Conductors*
Type E	Preset SL Models	
	18 Conductors	19 Conductors*
20 Awg	153 ft (46.6 m)	281 ft (85.6 m)
18 Awg	244 ft (74.3 m)	447 ft (136.2 m)
16 Awg	387 ft (117.9 m)	710 ft (216.4 m)

\* Using 2-conductor common.

A relay box (RB24) for use with a hardwire control only is available to extend the operating distance (control to relay box) up to 15,000 ft over 18 Awg wire.

The following cable sizes are the minimum recommended for use with the heaters/blower kit at the wattage and voltage listed.

#### 122 watts @ 24 VAC

20 Awg	23 ft (7 m)
18 Awg	37 ft (11.2 m)
16 Awg	58 ft (17.6 m)

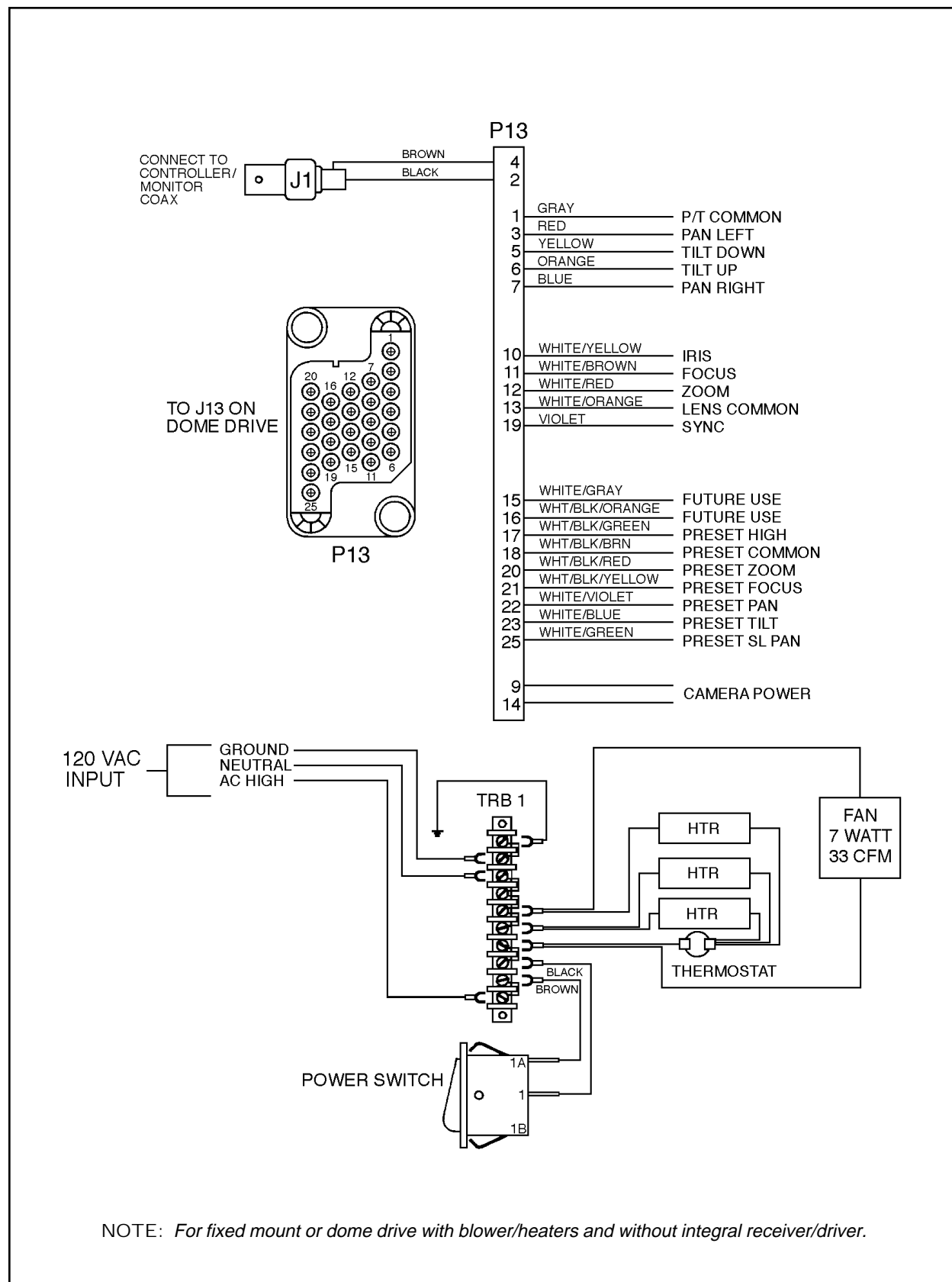
#### 127 watts @ 120 VAC

20 Awg	558 ft (170 m)
18 Awg	888 ft (270.6 m)
16 Awg	1,410 ft (429.7 m)

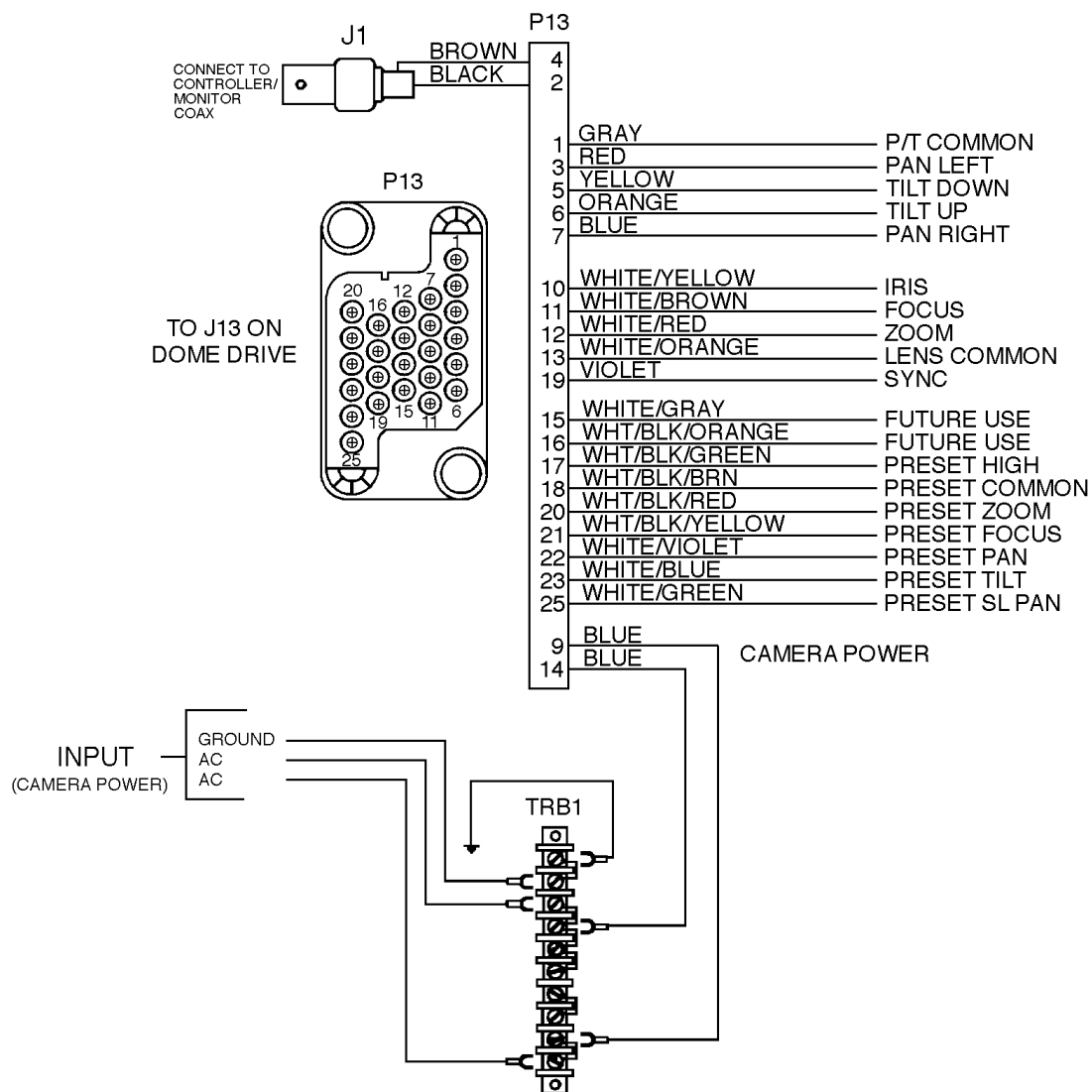
#### 129 watts @ 230 VAC

20 Awg	2,020 ft (615.7 m)
18 Awg	3,213 ft (979.3 m)
16 Awg	5,100 ft (1,554.4 m)

**Proceed to Section 3.3, DOME DRIVE INSTALLATION.**



**Figure 6.** Wiring Diagram, Hard-Wire Control with Heater



NOTE: For use in domes without integral receiver/driver or heaters and blower.

**Figure 7.** Wiring Diagram, Hard-Wire Control without Heater

### 3.2.3 Heater/Blower Kit Field Installation

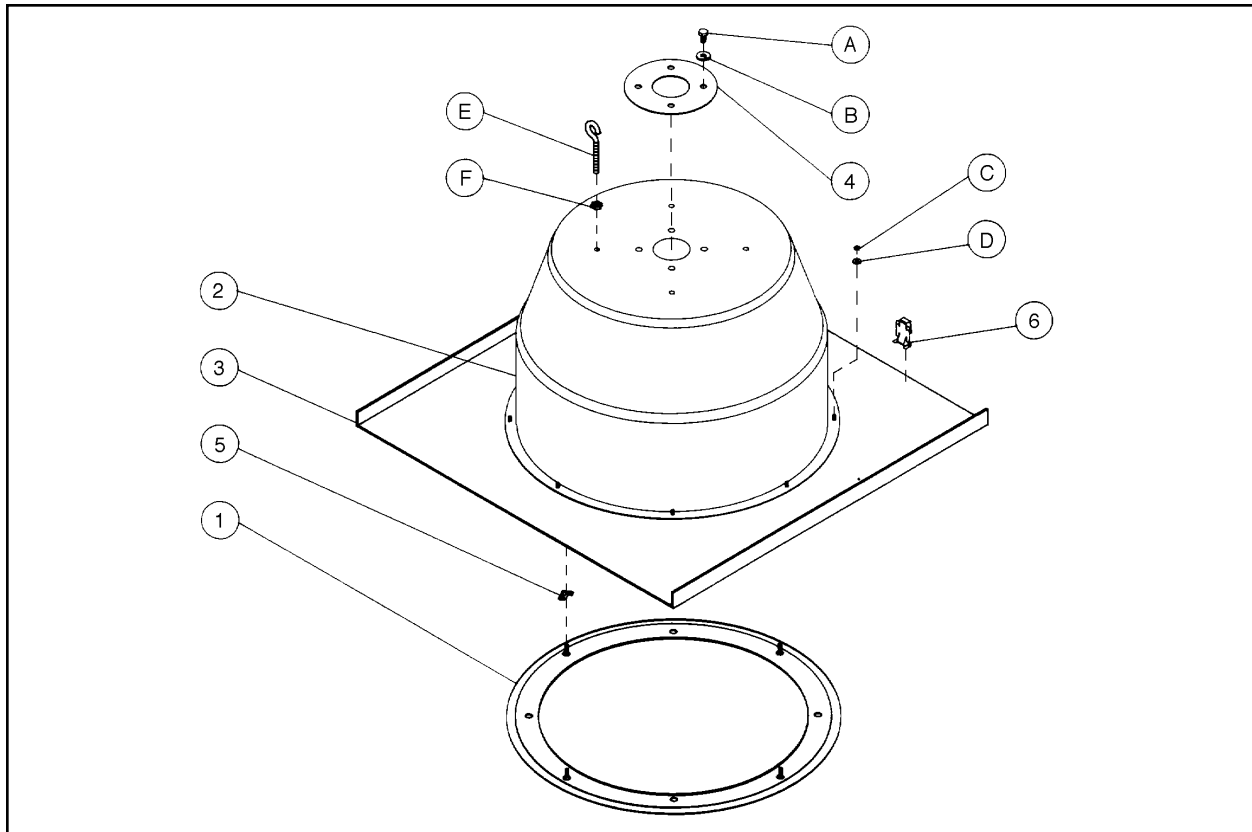
The kits are shipped partially assembled, to complete assembly and to install the heater/blower kit perform the following steps:

1. Place the fan over the four (4) unused internally threaded standoffs located on the back plate (refer to Figure 11). Note the arrow indicating the air flow direction of the fan, installing with arrow pointing "away" from back plate.
2. Place the heater assembly over the fan aligning the four (4) holes in the plate with the holes in the fan and the standoffs.
3. Install the four (4) #6 lock washers and screws through the plate and the fan threading the screws into the standoffs.
4. Mounting through one hole of the thermostat mounting tab, attach the thermostat to the standoff of the terminal block on the end nearest the fan using the 6-32 x 3/8" screw (see Figure 11).
5. Connect the terminated wires to the terminal block as shown in Figures 3 through 6 depending on back box configuration.

### 3.3 DOME DRIVE INSTALLATION

Back box installation is now complete. Proceed with the installation of the dome drive or fixed mount unit. Refer to the manual provided with the dome drive or fixed mount for further installation instructions.

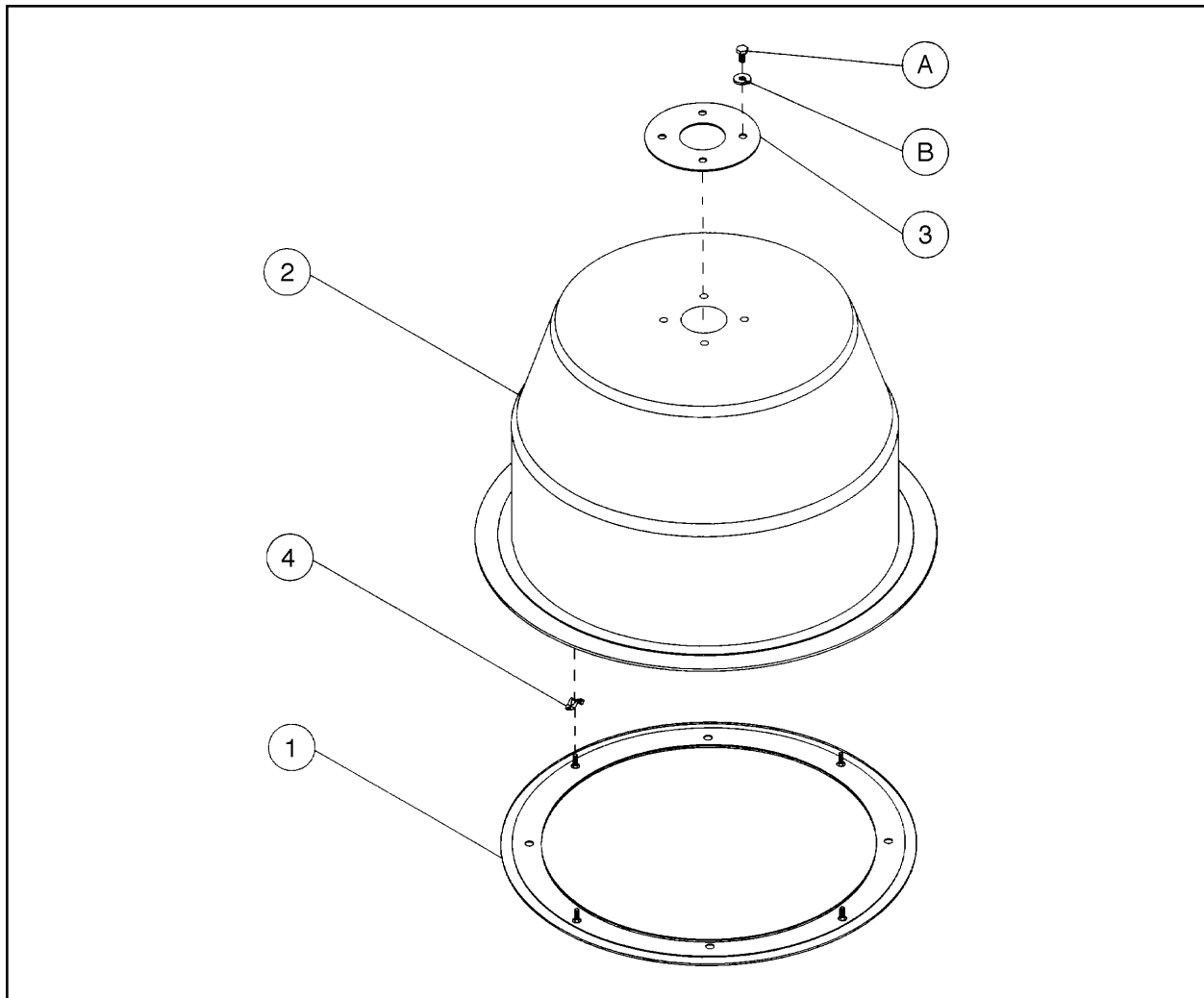
## 4.0 EXPLODED ASSEMBLY DIAGRAMS



**Figure 8.** Suspended Ceiling Back Box Exploded Assembly Diagram

**Table C.** Suspended Ceiling Back Box Exploded Assembly Parts List

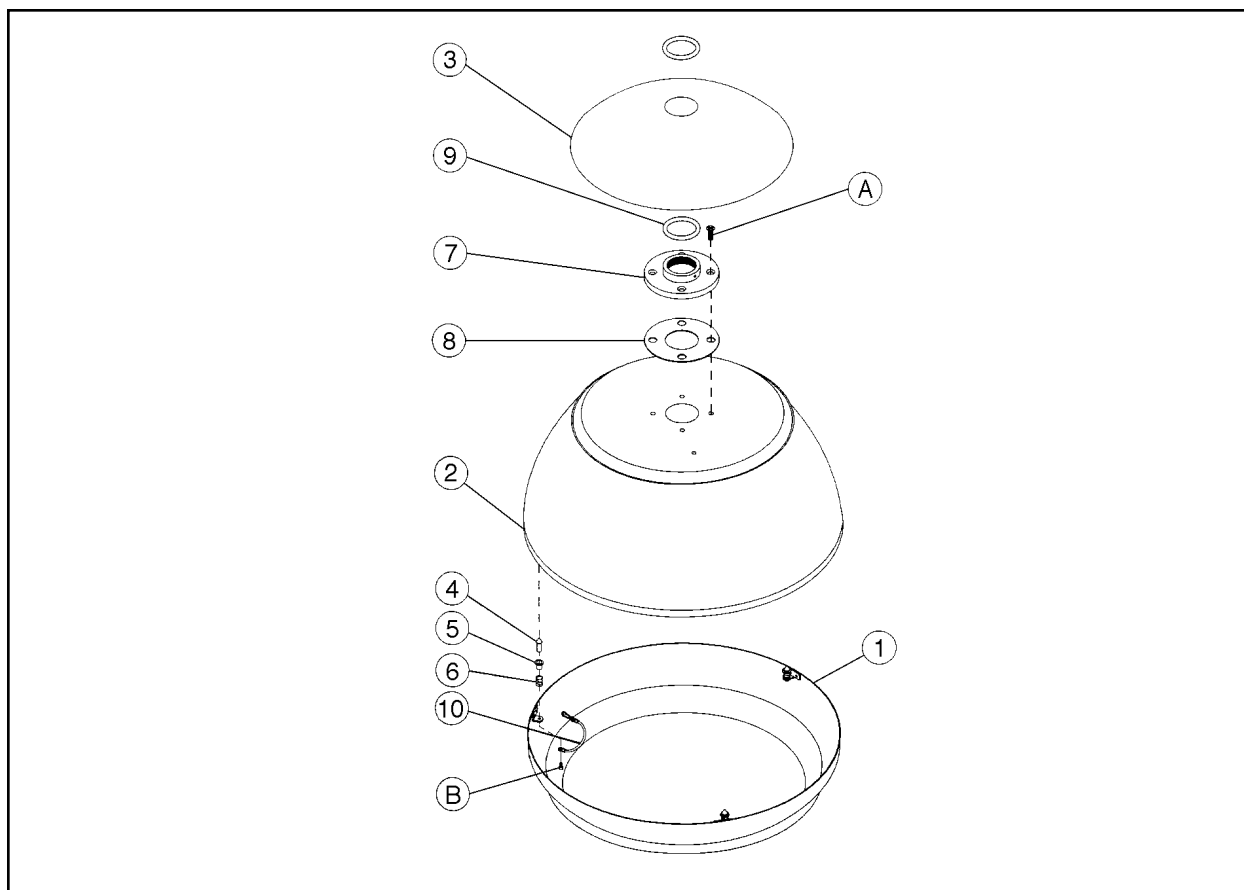
Item	Quantity	Description	Part Number
1	1	Trim ring, white	SB262ASSY
2	1	Back box	8144287COMP
3	1	Faceplate, drop ceiling, white	8144169COMP
4	1	Plate, gland	8004130COMP
5	4	Receiver, ball stud	PT180410001
6	4	Clip, T-rail retaining	80010008
	1	Switch, rocker, on/off, SPST (not shown)	SWI0201S11N41P
	1	Acrylic dome, clear (not shown)	81410001-5
	1	Acrylic dome, smoked (not shown)	81410001-4
	1	Dome gasket (not shown)	94510031
A	4	Screw, 1/4-20 x 3/8", pan head, Phillips	ZH1/420X.375SPP
B	4	Washer, split lock, 1/4"	ZH1/4LWSSL
C	8	Nut, 6-32	ZH6-32NUTSH
D	8	Washer, internal star, #6	ZH6LWSIS
E	2	Bolt, eye, 1/4-20 x 2" full thread	ZH1/4-20X2.0EYE
F	2	Nut, 1/4-20	ZH1/4-20NUTCH



**Figure 9.** Hard Ceiling Back Box Exploded Assembly Diagram

**Table D.** Hard Ceiling Back Box Exploded Assembly Parts List

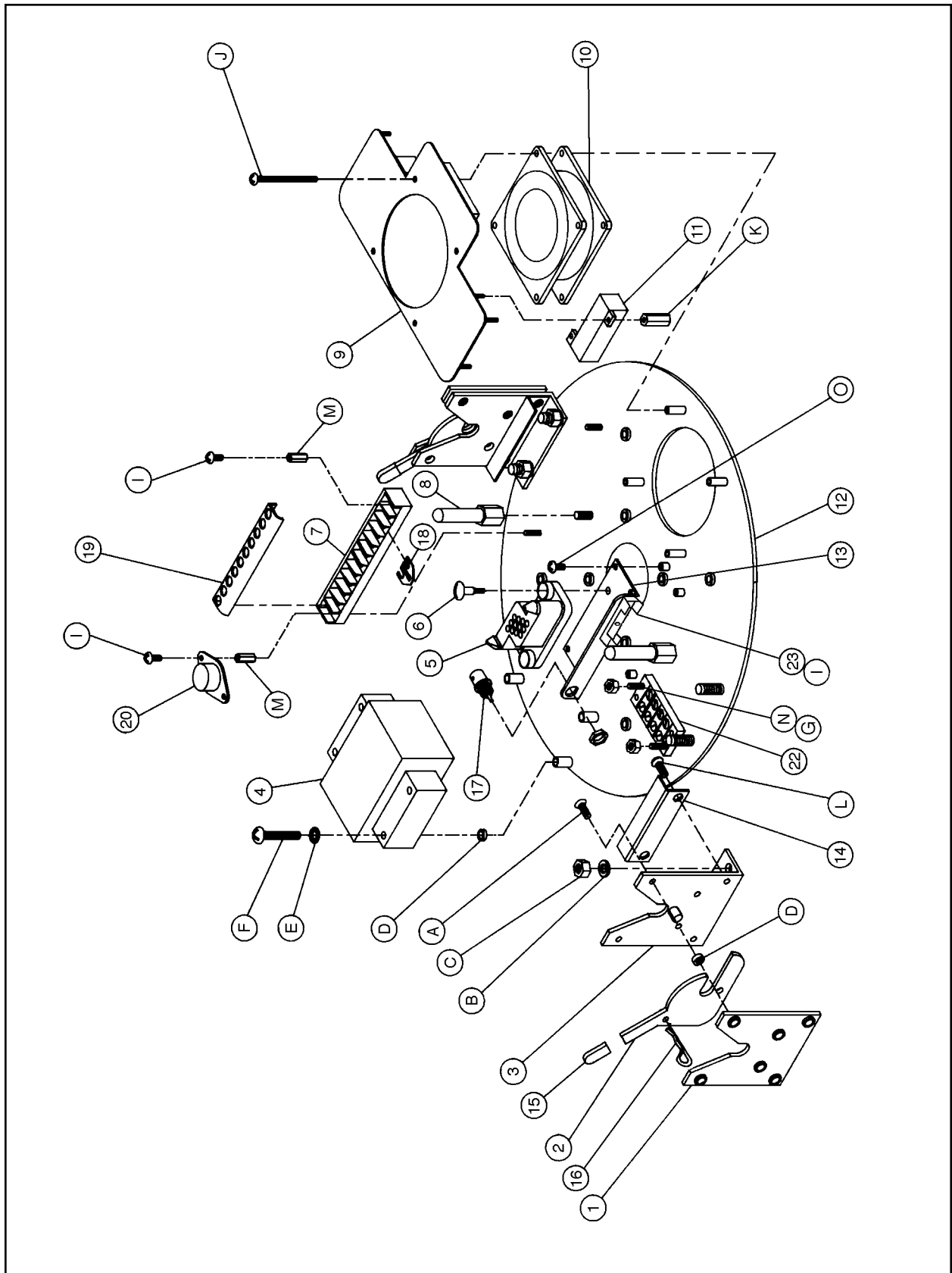
Item	Quantity	Description	Part Number
1	1	Trim ring, white	SB262ASSY
2	1	Back box	8141202WA
3	1	Plate, gland	8004130COMP
4	4	Receiver ball stud	PT180410001
	1	Switch, on/off, SPST (not shown)	SWI0201S11N41P
	1	Backup plate, optional (not shown)	8004110COMP
	1	Acrylic dome, clear (not shown)	81410001-5
	1	Acrylic dome, smoked (not shown)	81410001-4
	1	Dome gasket (not shown)	94510031
A	4	Screw, 1/4-20 x 3/8", Phillips pan head	ZH1/420X.375SPP
B	4	Washer, split lock, 1/4"	ZH1/4LWSSL
	1	Backup plate, optional (not shown)	8004110COMP
	4	Screw, 6-32 x 2", Phillips pan head (not shown)	ZH6-32X2.00SPP



**Figure 10.** Pendant Back Box Exploded Assembly Diagram

**Table E.** Pendant Back Box Exploded Assembly Part List

Item	Quantity	Description	Part Number
1	1	Bezel, black	8144190BCOMP
		Bezel, gray	8144190GCOMP
2	1	Back box, pendant, black	8144185BCOMP
		Back box, pendant, gray	8144185GCOMP
3	1	Cap, pendant, 14", black	8144984COMP
		Cap, pendant, gray	8144884COMP
4	3	Pin, bezel attachment	8004053COMP
5	3	Spacer, flanged, nylon, 1/4" CLR x 7/16"L	SPA3109
6	3	Spring, compression	SPRG10000
7	1	Flange, 1-1/2" NPT	MRCA4000COMP
8	1	Gasket (outdoor models only)	80010198
9	2	O-ring (outdoor models only)	80010010
10	1	Cable, safety	E7081002COMP
11	1	Switch, on/off, SPST (not shown)	SWI0201S11N41P
	1	Acrylic dome, clear (not shown)	81410001-5
		Acrylic dome, smoked (not shown)	81410001-4
	1	Dome gasket (not shown)	94510031
	1	Back box gasket (not shown)	EH450010000
A	4	Screw 1/4-20 x 5/8" flat hd phil, M/S, SS	ZH1/420X.625SFS
B	3	Screw 6-32 x 1/4" hex soc hd C/S, SS	ZH6-32X.250SS



**Figure 11.** Back Plate Exploded Assembly Diagram



**Table F. Back Plate Exploded Assembly Parts List (Figure 11)**

Item	Quantity	Description	Part Number
1	2	Latch backup plate	8004244COMP
2	2	Latch	8004105COMP
3	2	Latch bracket	8004143COMP
4	1	Transformer (120 VAC model only)	TRF21243.30.70F
5	1	25-position connector plug	CON10P025Z41T
6	2	Screw, 6-32	ZH208211-4
7	1	10-position terminal block	TRB6TBV-10-OE
8	2	Alignment pin	8004402COMP
9	1	Heater/fan mounting bracket	8004118COMP
10	1	Fan, 120 VAC	EH4600115W3
11	3	Heater, 120 VAC	HTR50120
12	1	Back plate	8004190COMP
13	1	Connector mounting bracket	8004046COMP
14	2	Stabilizer bracket	8004047COMP
15	2	Boot	80010007
16	2	Hairpin clip	ZH1/4CLIPSS
17	1	Connector, BNC jack, insulated	CON01J002Z41S
18	6	2-position jumper	TRBJ6-2
19	1	10-position terminal block cover	TRBTC6-10-PFH
20	1	Thermostat (units with heaters and blower)	EH5510049A
22	1	4-position terminal block	TRB4-140
23	1	Fuse holder	FUS357001
	1	Fuse, 2A 3AG (not shown)	FUS2
	1	Capacitor, .47 $\mu$ F, 12 V (not shown)	CAPE474P012MAY
	1	Capacitor, 220 $\mu$ F, 100 V (not shown)	CAPF221P100JRN
	1	Capacitor, 270 $\mu$ F, 100 V (not shown)	CAPF271P100JRN
A	4	Screw, 10-32 x 1/2" flat head, Phillips	ZH10-32X.500CFS
B	4	Split lock washer, 1/4"	ZH1/4LWSSL
C	4	Nut, 1/4-20	ZH1/4-20NUTCH
D	10	Spacer .312 OD x 1/8" long, #10	SPA8540
E	2	Internal star washer, #10	ZH10LWSIS
F	2	Screw, 10-32 x 1" pan head, Phillips	ZH10-32X1.00SPP
G	2	Nut, 6-32	ZH6-32NUTSH
I	2	Screw, 6-32 x 3/8" pan head, Phillips	ZH6-32X.375SPP
J	4	Screw, 6-32 x 2" pan head, Phillips	ZH6-32X2.00SPS
K	6	Spacer, 3/16" hex by 3/4" long, 2-56 tapped	SPA9401L
L	4	Screw, 10-32 x 1/2" pan head, Phillips	ZH10-32X.500SPP
M	2	Spacer, 1/4" hex by 1/2" long, 6-32 tapped	SPA8423
N	2	Screw, 6-32 x 5/8" flat head, Phillips	ZH6-32X.625SFS
O	4	Screw, 6-32 x 1/2" pan head, Phillips	ZH6-32X.500SPP

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## 5.0 SPECIFICATIONS

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*NOTE: It is not recommended using 24 VAC in applications requiring heaters/blower because of the excessive current draw that may exceed Class 2 transformer applications.*

### ELECTRICAL

#### Enclosure Back Box

Input Voltage: 24 VAC or 120 VAC

#### Power Requirements

Receiver/Driver: 48 vA for 24 VAC and 120 VAC dome drives

#### Blower

continuous duty: One (1) at 30 cfm, 1.92 watts, 24 VDC

One (1) at 33 cfm, 6.7 watts, 120 VAC 60 Hz

One (1) at 27 cfm, 8.9 watts 230 VAC 50 Hz

#### Heaters

24 VAC: 120 watts total

120 VAC: 135 watts total

230 VAC: 105 watts total

Thermostatically controlled; activates ON at 40°F (4.4°C) and OFF at 60°F (15.56°C)

Power cord: Not supplied; use 3-wire grounded, 18 Awg minimum for 120 or 230 VAC supply input

Power cable: Not supplied: must conform to local and national electrical codes

### GENERAL

#### Enclosure

Environment: Indoor or outdoor (depending on model ordered)

Dimensions: See Figures 12 and 13

#### Construction

Back box: Aluminum

Cap: Aluminum

Bezel: Aluminum

Trim Ring: ABS/aluminum

Finish: The following are standard colors; consult factory for optional colors

#### Outdoor

Pendant Light gray

#### Indoor

Suspended/  
Hard Ceiling White (back box) and eggshell white (faceplate, trim ring and bezel)

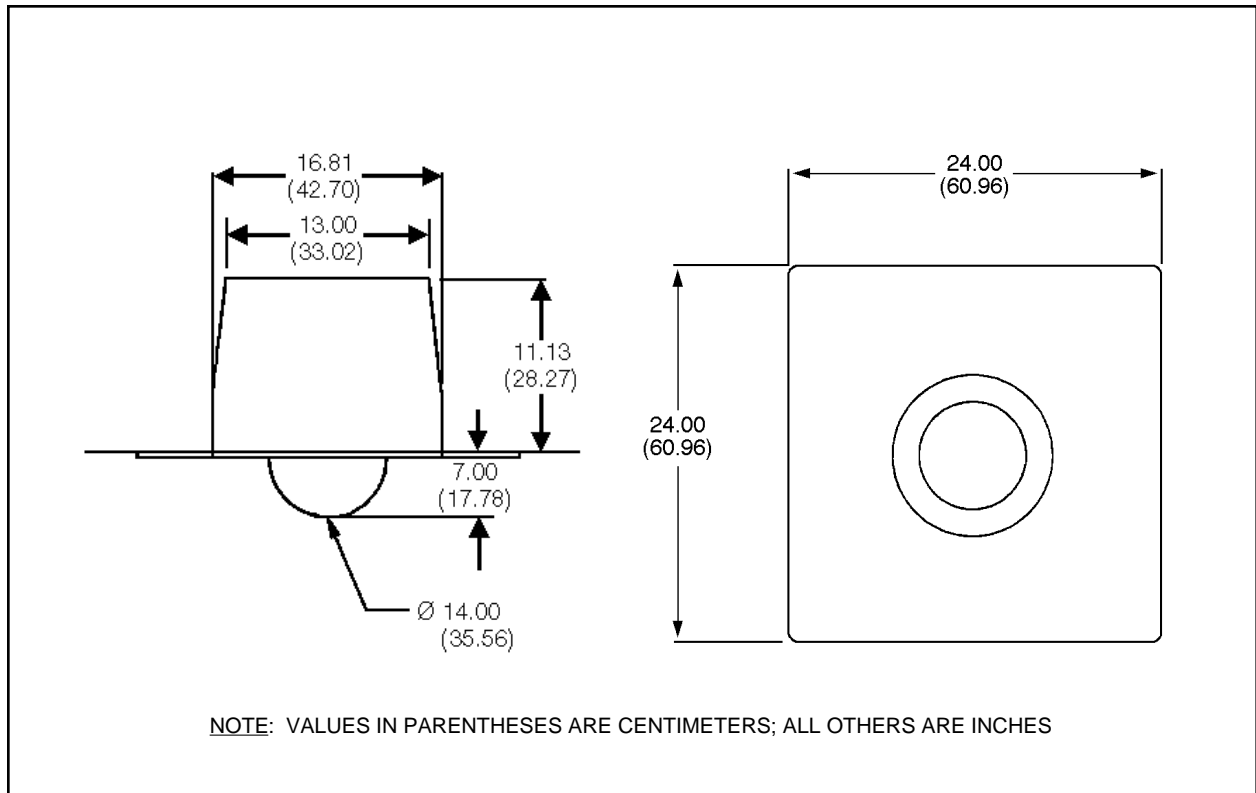
Pendant Black

#### Temperature Range

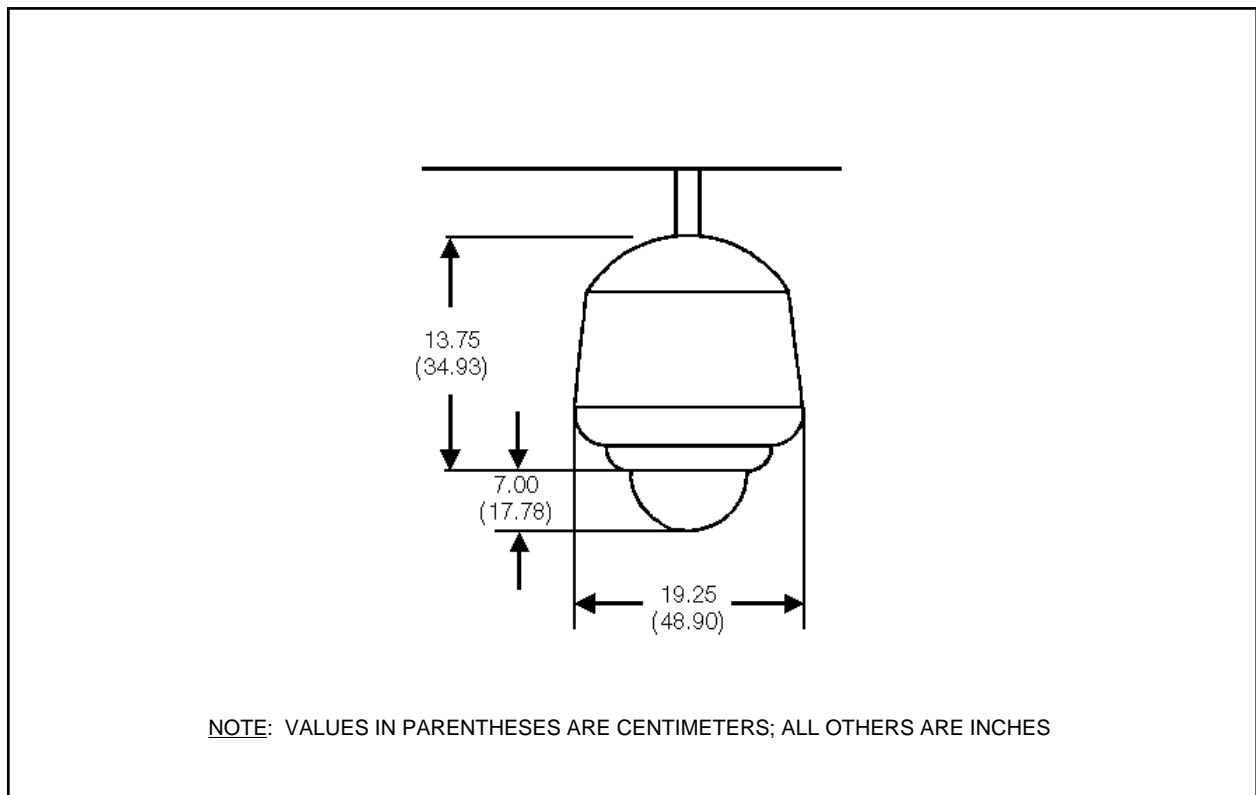
Indoor models: 32° to 120°F (0° to 48.89°C)

Outdoor models: -10° to 120°F (-23.33° to 48.89°C)

*(Design and product specifications subject to change without notice.)*



**Figure 12.** Suspended/Hard Ceiling Dimension Drawings



**Figure 13.** Pendant-Mount Dimension Drawing

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## 6.0 WARRANTY AND RETURN INFORMATION

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### WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship for a period of one (1) year after the date of shipment. Exceptions to this warranty are as noted below:

- Two (2) years on all standard motorized and fixed focal length lenses.
- Two (2) years on Legacy®, Intercept®, PV1000 Series, CM6700/CM8500/CM9500/CM9750/CM9760 Matrix, Spectra™, DF5 Series and DF8 Fixed Dome products.
- Two (2) years on WW5700 series window wiper (excluding wiper blades).
- Two (2) years on cameras.
- Six (6) months on all pan and tilts, scanners or preset lenses used in continuous motion applications (e.g., preset scan, tour and auto scan modes).

Pelco will warranty all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Ship freight prepaid to: Pelco  
300 West Pontiac Way  
Clovis, CA 93612-5699

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

### RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair). Goods returned for repair or credit should be clearly identified with the assigned CA/RA number and freight should be prepaid. All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Ship freight prepaid to: Pelco  
300 West Pontiac Way  
Clovis, CA 93612-5699

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